"Extreme" Organizational Ethnography: The Case of the Darwin Expedition in Patagonia

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A considerable body of ethnographic-oriented research has been conducted within large corporate settings. The tendency over recent years, however, has been to introduce new forms of ethnography and encourage this type of research in settings outside the organizational domain; such a tendency has been widely adopted in the field of Organization and Management Theory (OMT). We propose herein an innovative form of ethnography, called "extreme organizational ethnography", as a step towards producing more relevant organizational knowledge. Despite consensus reached on the need for organizations to cope with uncertainty and risk, most OMT-based research has not devoted serious attention to disruptive and fast-changing environments. Our position therefore is that an analysis of events taking place *in situ* within an unknown and uncertain environment may in fact prove highly instructive for organizations placed in situations of tremendous volatility and disruption.

This approach has been based on a unique research experience: participating in the Darwin expedition, whose goal was to traverse the Cordillera Darwin[1] in Tierra del Fuego (Patagonia), located very close to Cape Horn and one of the world's least unexplored regions. Drawing on this research setting, we have raised the following questions: How does extreme organizational ethnographic research contribute to an improved understanding of contemporary organizational issues? Under which conditions and challenges might such an innovative research design be fruitful?

This paper comprises four parts. We will first examine new ethnographic forms and explain our definition of extreme organizational ethnography. The Darwin expedition will then be presented along with an overview of the data collected during the field work phase. A discussion will follow of the potential contributions offered by this type of research to organizational and management studies. Lastly, the four challenges facing researchers who elect to use such an innovative design will be raised, in order to better understand how managers and other actors operate under ambiguous and uncertain conditions.

I. From conventional to extreme organizational ethnography

Ever since the field work conducted by Garfinkel (1967), Sacks (1963), Becker (1963) and Goffman (1961), ethnographic-inspired research has been steadily gaining prominence in the social sciences. The desire to include the human dimension and examine intrinsic dysfunctions in organizational efforts has motivated a number of researchers in the OMT field to opt for ethnographic approaches. The first ethnographically-oriented work in OMT came to the fore through the Chicago School and inspired many specialists in the sociology of bureaucracy during the 1940's and 1950's. References along these lines include the seminal company monographs produced by the likes of Gouldner (1954), Selznick (1949) and Crozier (1963). In this vein, it is also important to mention Elton Mayo's contributions over a 30-plus-year period as well as publications by the Tavistock Institute, featuring extended periods of factory observations by research teams, for the widespread responses they have generated.

[1] In commemoration of Charles Darwin's participation in the expedition of Captain FitzRoy's Beagle ship around this region in 1833.

Over the past decades, organizational ethnography has traditionally been associated with the study of organizational cultures and groups through participant observation, direct involvement and interviews (Gellner and Hirsch, 2001; Van Maanen, 1998; Boden, 1994). According to this perspective, a considerable body of ethnography-based research has typically been performed within the confines of large bureaucratic organizations (Van Maanen, 1986). While such efforts have produced a substantial amount of organizational knowledge, the current preference for renewing this methodological approach has been expressed in two ways. First, ethnographers tend to work with settings that differ from classical organizations, for the purpose of investigating new organizational phenomena or showcasing classical phenomena (Caulkins, 1988; Holliday, 1995; Moule, 1998; Ram, 1994; Reveley *et al.*, 2004). Second, researchers develop innovative methods and techniques for introducing ethnography and, in so doing, have proposed a new genre of organizational ethnography (Van Maanen, 2006).

To illustrate the first of these recent trends, Hatch and Weick (1998) studied a jazz orchestra and paved the way to exploring the jazz metaphor, as a means to describe and better understand managers' activity schedules[2]. Along the same lines, Le Theule (2007) focused on artists' "squats" to draw lessons on management control. Reveley *et al.* (2004) developed an understanding of informal processes in small firms through analyzing informal face-to-face interactions within socio-spatial regions *outside* the firm. Coget *et al*. (2009) studied the decision-making process adopted by filmmakers working their way through cinema projects on the set under intense emotional pressure.

In the last few years, an increasing number of organizational ethnographers have sought to reshape this research orientation by proposing new techniques for analyzing and collecting ethnographic data. As Yanow (2009) argued, ethnography is not solely about corporations or compilations of interviews. Researchers might prefer to involve themselves in a more critical or reflective approach towards ethnography. For example, Devault (2006) referred to institutional ethnography and proposed studying work processes and their coordination through documents and speeches. Bruni (2005) suggested the need to perform what she termed an infrastructural ethnography by following non-human instead of human activity. To capture the fundamental transformations occurring in workplace studies, Engeström (2006) drew from activity theory and proposed a research program on developmental work centered around the multiple levels of mediated artifacts. Other ethnographic researchers have suggested research design enhancements through the use of photographs, films and a wide array of newer visual data (available on Websites, etc.) (Lallier, 2009).

In the context of these more recent trends in organizational ethnography, Yanow (2009), in a stimulating paper on the challenges presently faced by the organizational ethnography (OE) field, invited researchers to incorporate new virtual media organizations as a means of shifting the methodological emphasis behind organizational ethnography. In this pursuit, we have

[2] *Organization Science* devoted a special issue in 1998 to jazz, entitled: *Jazz Improvisation as a Metaphor for Organization Theory*, Vol. 9, No. 5, 1998.

proposed a new form of organizational ethnography qualified as "extreme". According to our view, "extreme organizational ethnography" (EOE) is distinct from traditional organizational ethnography in that over a given time period participants are focusing on a common objective beyond their ordinary context. Activities take place within a temporary or project-based setting that assembles participants from various organizations and spheres. This temporary organization should also be a comprehensive one with all participants involved being physically removed from their respective familiar worlds. It is precisely this social and spatial dislocation that places participants in an "extreme" situation. These same specifications need to be applied as well to the research team, which is also asked to act under "extreme" conditions. As an example, Benoit-Barné and Cooren (2009) followed a "*Médecins Sans Frontières*" (Doctors without Borders) team in the Congo in 2005, while Lièvre and Rix (2008) conducted studies during a series of polar expeditions.

An ethnographic research effort of this type helps advance the state of OMT knowledge in four ways. First of all, the fact that participants are placed in collaborative situations that lie outside the classical organizational structure provides access not to what constitutes the organization in and of itself, but instead to what is called "organizing" (Czrniawska, 2008). Among other things, the group must build an organization, communicate with the outside world and create something such that all organizational aspects can be identified as acting simultaneously.

Second, given the status of a total situation as intended by Goffman, actors and researchers need to reestablish their own rules, like in a small group set up for a temporary purpose. In addition to reflecting the host organizational culture and specific domains of expertise, these rules must be unique to the group. Moreover, only an in-depth study of project teams can provide insight into how, given a narrowly-defined context at the "micro" level rather than organization-wide, participants are able to act and interact in order to bring a project to fruition (Koenig, 2003). Concluding the situation successfully (as in immersion within a closed setting, J. Favret-Saada, 1977) facilitates the observation stage. It then becomes possible to determine how actors socially construct their context and how they interpret the unexpected events that arise, through either giving events a favorable spin or removing them from the narrative being portrayed.

Researchers involved with the "Strategy-as-Practice" school (Whittington, 2006; Rouleau, 2005; Jarzabkowski, 2005; Johnson *et al.*, 2003) have pointed out that a detailed record of field practices aimed at action, decision-making and process implementation constitutes a prerequisite to improving understanding of how skills are updated and generated inside an organization (Regner, 2003; Ambrosini *et al.*, 2007). Since actors are associated with contexts over which they do not necessarily exercise control, change and uncertainty can be approached differently. Some of the knowledge produced in OMT has up until now proven insufficient as a means of fully comprehending this distinction. The majority of research focusing on such topics has relied on clinical studies or on data collected retrospectively (Crossan *et al.*, 2008).

Lastly, the new forms of organizational ethnography tend to ascribe a greater role to the researcher (Yanow, 2009). A researcher studying settings that, culturally speaking, lie on familiar ground (e.g. a management researcher conducting an investigation of the workplace) is required however to exit from his own cultural frame of reference. Adopting an approach that entails extreme organizational ethnography renews the researcher's relationship with the field environment by placing the researcher, like the actors under observation, outside the comfort zone where they typically operate.

In the following sections, we will present results of the data collection effort along with an abridged account of the events surrounding the Darwin expedition in Patagonia we accompanied as researchers. This input will serve to frame the paper's final section, aimed at strengthening the contributions derived from such an ethnographic experiment for the purpose of furthering the state of OMT knowledge.

II. The Darwin Expedition

The Darwin expedition (www.unrevededarwin.fr) was intended to cross the Cordillera Darwin, in Tierra del Fuego (Patagonia), one of the last unexplored regions of the world and located very close to Cape Horn. Even today, no detailed maps or GPS data of the region are available and moreover Mount Darwin has never been precisely located. As a result, the inherent difficulties of the expedition were nearly unknown to the team of climbers and ultimately exacerbated by particularly hostile climatic conditions.

The unique feature of this expedition was its underlying dual mission: crossing the Cordillera Darwin, while conducting a scientific project. The latter involved three components: medical (study on stress and sleep patterns under extreme situations), biological (soil ecology and mechanisms), and human (better understanding of the leadership role and teamwork in an unknown context). The discussion in this paper will focus specifically on the management research project of interest to our team of four researchers. We joined the expedition in pairs (three weeks spent onsite by each pair); our project organization not only ensured the onsite presence of researchers throughout the expedition, but also respected the constraint whereby climbers were unable to guarantee the safety of more than two researchers at a time when undertaking a climb.

We will begin by describing the data collected over the three expedition phases and then provide an overview of the entire expedition.

Data collection effort

The expedition comprised three phases: preparatory (autumn 2008 to summer 2009), the actual expedition (autumn 2009), and post-expedition (autumn 2009, extending into 2010).

The preparatory phase was devoted to expedition planning and organization (financing, sponsorship drive, choice of participants, complex logistics, program design, etc.). During this phase, researchers attended meetings, coordinated interviews and established e-mail

correspondence with the climbers. Two of the four researchers also had the opportunity to spend some time *in situ* with the team leader during July 2009, helping to complete a number of tasks.

During the expedition itself, the researchers were housed at the various base camps with the climbers: a boat (moored at an itinerant base camp), a cabin and tents pitched on the ground all served as base camps. The researchers stayed with the climbers throughout practically the whole expedition, except for a few days spent in the Cordillera without returning to the camp. This protocol allowed them to directly observe numerous situations and conversations, in addition to engaging in face-to-face interactions and conducting interviews with expedition team members. Researchers also took part in some selected team activities (including meal preparation, equipment check-in and VHF communication set-up). One researcher was allowed to be on hand during key expedition moments (reconnaissance itineraries, food and equipment transfer hikes), and this access offered a unique opportunity to directly observe behavior and interaction in the field.
The data collection step focused predominantly on day-to-day activities, interactions and impressions of the team leader and members, yet also included surprise incidents and a few mishaps (Alvesson and Sveningssen, 2003; Journé, 2005). Researchers relied for the most part on note-taking and audio/video recordings, two techniques that seemed particularly well suited to this type of mobile situation (Lièvre and Rix, 2008). Short, semi-structured interviews were conducted during the expedition, along with a round of interviews held upon completion. While climbers were up in the mountains, researchers tracked their activities and impressions through daily VHF radio links and Iridium phone calls; climbers were also given individual tape recorders or notebooks and requested to reserve a bit of time each day to answer these three questions: 1) What happened today?, 2) How did I feel during the day?, and 3) What am I expecting from tomorrow? A cameraman, working on a professional movie, was in charge of the video recording of specific situations and interactions during the project.

Once the expedition phase had ended, our research was still ongoing however: the post-expedition phase began in November 2009 and has extended well into 2010.

The following table provides a review of all data collected since the beginning of the project and up until today:

Table: data collected

Phase	Recorded interviews	Other audio recordings	Videos	Observations	Documents
Preparatory	All mountain guides + team leaders (10)	6 team meetings Informal conversations	Team members *2 hours*	Team meetings + informal discussions. Pre-expedition tasks (*1 week in situ* with the team leader)	e-mails, reports, books, graphics, cards, photos Researchers' diaries
Expedition	Interviews (leader + team members) (11) "End of expedition" interviews (6)	Meetings, conversations *> 90 hours* Self-recordings (team members' and researchers' diaries) *> 50 hours*	Interviews, meetings, debriefings Numerous and varied day-to-day exchanges and maritime / climbing situations *> 80 hours*	Direct observation (total immersion) Participant observations *6 weeks* *24 hours a day*	Graphics, cards, GPS, weather reports, expedition diary (Website) Team members' diaries (notebooks) Researchers' diaries Photos (*40 Go*)
Post-expedition	In progress: focused interviews		In progress: The Darwin Expedition movie	e-mails, post-expedition meetings and events	e-mails, articles Researchers' diaries

A complete account of the expedition

Let's now examine the three phases one at a time in order to distinguish the items we feel deserve attention when discussing how such a research experience can lead to a better understanding of certain contemporary management aspects.

For starters, during the preparatory phase, four activities were found to be critical: selecting the right team members, securing financing, traveling to Patagonia on a reconnaissance trip, and organizing logistics for the expedition equipment (skis, ice axes, tents, clothing, food, etc.). These tasks were primarily performed by the two expedition leaders: one a famous climber with extensive expedition experience, the other a businessman with considerable knowledge of mountainous environments. During the preparatory phase, the project scope was expanded in two ways: a scientific team got involved with the expedition, and plans for a film took shape. Given the impact on project financing caused by these two supplemental components, an association was formed. Accordingly, "Darwin's dream" refers not only to an expedition, but to the founding of an association as well. A code of conduct outlining the values adopted by project group members was signed by all participants. A series of financing actions (sales of T-shirts and bottled wine, sponsorship drives, etc.) were central to this phase. The reconnaissance journey offered the opportunity to establish contact with local actors, whose involvement would be vital to expedition success (these contacts included the boat captain, the local guide and key individuals in Porto Williams).

Though completed without encountering any dire problem, this expedition still deviated substantially from the original plan. First of all, it took nearly two weeks to reach the Cordillera by boat, opposite the landing site initially indicated. Upon arriving at Punta Arenas, the boat that was supposed to serve as a base camp was not yet ready. Further delays were

caused by the storm and despite multiple attempts, the vessel remained unable to cross the Strait of Magellan. At this point, the expedition leader decided to board a cargo ship willing to transport the team to the eastern end of the Cordillera, with the intention of crossing the mountain range from east to west, i.e. a reversal of the initial plan. Two teams were formed and started to climb by two different itineraries. The teams were supposed to meet on the Cordillera ridge, from where they would continue the crossing together. Yet after five days of advancing into the Cordillera, climbers found themselves facing an impenetrable mountainous relief; on orders from the expedition leader, they made their way back down. The Cordillera could not be crossed along this itinerary and plans once again had to be modified.

An alternative strategy was then devised: recast the expedition around more modest goals by "ascending a series of peaks in a star-shaped pattern" along with a few "firsts" (i.e. summits never before conquered) within the Cordillera in the vicinity of Mount Darwin, as the overarching symbol of this entire adventure. The boat was ultimately able to cross the Strait of Magellan and reached the climbers' location, at which point a break in its hold caused some down time for repairs in the small Yendegaia Bay. To complete these repairs, it was necessary to beach the boat during low tide and wait for the tide to rise while another small trawler was called to help launch the boat. By then, four of the six weeks allotted to the expedition had already elapsed. Since the Cordillera crossing had become impossible, an alternative plan had in the meantime been drawn up. To salvage the film project, it was decided to separate the team, with one group accomplishing a series of mountain climbs while a second group traveled to Cape Horn to record images of Patagonia and its inhabitants. This revised plan also underwent multiple transformations over time and generated its share of problem situations to be resolved (delays due to temperature, search for gasoline to fuel the dinghy, etc.). The group of climbers that stayed in the mountains found success by conquering two new summits, naming the peaks respectively Pico Karine Ruby, after a climber scheduled to participate in the expedition but died in a climbing accident during summer 2009), and Pico Ludivine (after the expedition leader's daughter, whose birthday landed on the day of the ascension). The mountain team then set their sights on Mount Shipton, but weather conditions prevented achieving this objective.

The post-expedition phase is still ongoing. After holding a number of conferences among mountain and climbing specialists, the bulk of this phase has consisted of managing equipment return and selling off the extraneous supplies. Moreover, the filmmaker and expedition leaders are putting the film together while developing new products based on expedition accomplishments.

III. Darwin case study contributions to understanding organization and management

This case study has provided a significant and original contribution to organizational understanding, thanks not only to a set of risky and uncertain field conditions occurring both *in situ* and in real time, but also to the study's ability to process social phenomena from a comprehensive perspective played out within a restricted space-time domain. Given that this research has targeted an organized group pursuing a specific objective within a confined setting, it can be stated that the Darwin expedition has offered a "total situation", according to the Goffman (1961) perspective. The Darwin case study actually featured a highly limited scope, i.e. a small team operating in very close quarters (on a boat, or at the base camp) for a predefined period (6 weeks).

From this experience, we can definitely learn some lessons applicable to all practitioners responsible for leading complex initiatives and making decisions in uncertain contexts. Besides being unique, this situation can be qualified as "extreme" (as defined above) from the standpoint of actors as well as researchers. In such situations, the key stakes are likely to appear with greater clarity since the actors here can no longer look to their day-to-day routines for cover or talk their way out of predicaments (Huff, Neyer and Möslein, 2010). In addition, the fact of taking part in what Engeström (2006, 2008) coined "*knotworking*" or a "latent organization" may sharpen our view of the contradictions revealed by participants. While these actors were focused on achieving the short-term objective of crossing the Cordillera Darwin, this project was also responding to long-term ambitions in the climbing world, which as part of an effort to build a wider audience has hailed the expedition's potential breakthrough accomplishments in little known lands along routes of exceptional difficulty and exposure[i]. During this expedition, guides were motivated by the opportunity to explore and evolve in an unknown environment, as opposed to their professional routines.

As regards OMT knowledge acquisition, we feel that the data collected is capable of assisting with developments in the three specific fields discussed below: decision-making within a project setting, sensemaking, and leadership.

Decision-making within a project setting

The research conducted on decision-making has, in general, sought to understand the mechanisms by which good decisions are produced. Traditional approaches have tended to favor the notion that rational or neo-rational models were, without a doubt, the most efficient when placed in routine management situations (Simon, 1978). Once the level of uncertainty or risk starts to rise, decision-making becomes more complex, and retracing the steps leading to a good decision becomes more difficult. Other approaches have been developed to demonstrate that rationality had indeed been incorporated into the organization's discursive and cultural practices (Suchman, 1987; Engeström and Middleton, 1996). Moreover, recent research has adopted a naturalistic approach (called natural decision-making, NDM) in an attempt to understand the distributed and situated characteristics of decision-making (Alby and Zucchermaglio, 2006; Gore *et al.*, 2006).

In all cases however, the emphasis always lies on identifying how the right decision is actually made, regardless of whether or not the decision is optimal. Contexts are readily found in which actors proceed with a series of decisions that, while not devastating or deleterious, prove to be less efficient or beneficial than expected. Such is the case for what Meyer and Zucker (1989) termed "permanently failing organizations", which are not necessarily good economic performers yet continue to survive precisely because the actors depending on these organizations have a vested interest in their survival. This phenomenon is even more apparent in: non-profit organizations, private or public organizations that rely on government subsidies, firms operating in declining industrial sectors, and certain types of family-run businesses. For the time being, no analytical model offers insight into how the decision-making process plays out in these situations of sustained subpar performance, knowing that many organizational situations can be characterized by such processes (Rouleau, Gagnon and Cloutier, 2007).

Several phenomena have overlapped throughout this expedition. For one thing, the initial objective of crossing the Cordillera turned out to be totally infeasible within the allotted schedule. This mountain range was extremely difficult to reach and climb across, given that appropriate itineraries and access routes remain unknown; many subsequent expeditions lasting several months at a time will obviously be required to complete an adequate exploration! Moreover, poor weather and maritime conditions hindered progress during the 6-week expedition period. Yet despite it all, participants were able to experience a series of micro-decisions that, without dooming the expedition *per se*, did take certain situations from bad to worse. The expedition we monitored has led us to an even finer understanding of the reality behind such an experience.

To proceed, we plan on building a decision-making directory comprising various decision categories, with the aim of identifying how actors implement practices that allow moving the project forward while maintaining it in a relative state of inertia. This directory is intended to draw comparisons between the collective dimension of decision-making and the individual vision held by project actors. The convergence or divergence of these two dimensions, as well as their recurrence, should yield tacit decision-making patterns. Put otherwise, this approach would be expected to provide an answer for a question that characterizes so many organizational settings, namely: why is it that when things start to go wrong, they always take a turn for the worse? Situations of systemic deficiencies stem from the fact that the actors involved, beyond the determination they display through words, wind up tacitly pursuing their poor work habits and inappropriate actions (serving to perpetuate a situation even though it is fundamentally unfavorable) since these actors have basically no interest in seeing things change. This acknowledgment is indeed tacit and unintentional and moreover results from an array of uncoordinated actions that the actors preserve while nonetheless including change in their official positions. The expedition discussed herein should offer insight into such issues and contribute to improving understanding of these contexts as well as to ongoing research conducted on naturalistic decision-making (Gore *et al.*, 2006).

Sensemaking

The topic of sensemaking has intrigued OS researchers, given its overlap with organizational performance (Thomas *et al.*, 1993). Sensemaking involves turning circumstances into a situation that can be explicitly comprehended using words and that serves as a springboard for action (Weick *et al.*, 2005, p. 409). An assessment of practices at the micro scale makes it possible to update the sensemaking process (Rouleau, 2005). Based on a study of actions and interactions, Weick (1993) demonstrated how actors working in small groups facing difficulties were able to build meaning (Weick and Roberts, 1993). Sensemaking takes shape not only through what actors are actually doing but also through what they say. For Weick *et al.* (2005: 409), sensemaking is, first and foremost, an issue of language, verbalization and communication. Situations, organizations and environments are all talked into existence.

The interruption of ongoing activities provides important occasions for sensemaking (Weick, 1993); these interruptions may occur during periods of crisis or in change contexts that generate turbulent and unpredictable situations. Maitlis and Sonenshein (2010) have shown that contexts of crisis and change, despite their differences, have much in common inasmuch as both introduce interruptions in well-practiced patterns and constitute ambiguous events with confusion as a typical byproduct (Maitlis and Sonenshein, 2010: 558).

An ethnomethodology approach allows investigating the practices by which an "intersubjective" world is constructed through sensemaking (Leiter, 1980). Crisis or change situations however are difficult to investigate in real time, i.e. when participants are working in an ordinary setting; in the change literature, scholars often favor the interpretations expressed by top management (as opposed to those stemming from the lower echelons) (Maitlis and Sonenshein, 2010). Our opinion is that an in-depth examination of the contexts where participants are channeling efforts around a common objective outside of their ordinary settings (as we proposed for EOE), which for this purpose are considered as change contexts, may help to better understand sensemaking issues with respect to all participant interpretations. More specifically, the EOE framework allows collecting highly detailed and varied data over extended periods, in an actual yet restricted context, beyond project team members' traditional spheres. This feature helps highlight the conditions under which a collective sense of the new situation can be built in rapidly changing contexts (Maitlis and Sonenshein, 2010); such a building process entails investigating "conversational and social practices (methods), through which the members of a society socially construct a sense of shared meaning for the society and its institutions" (Benson and Hughes, 1983; Garfinkel, 1967; Leiter, 1980 (as cited by Gephart, 1993:1469)).

During the Darwin project, the construction of shared meanings seems to have played both a positive and negative role. Climbers relied upon their shared professional identity in order to ascribe meaning to the chaotic situations they were living, a capability that allowed maintaining good group cohesion and healthy relations with fellow team members. On the other hand, their attachment to this identity appears to have hindered their interpretation in confronting new situations (e.g. they continued to trust the weather reports dispatched by French sources throughout the expedition even though these forecasts were always inaccurate)

and placed more pressure on instilling group conformity (Janis, 1982). We will make use of the detailed set of data collected during the expedition in attempting to understand how the climbers in practice interpreted situations and which elements assisted or impeded their adaptation to the rapid and unpredictable changes taking place in their environment (Maitlis and Sonenshein, 2010).

Specifically, the Darwin case study may illuminate how emotions affect the sensemaking process in such environments. In fact, although the impact of emotions inside organizations has been receiving increased attention for roughly 15 years (Munkejord, 2009), only a few studies have explored the role of emotions in sensemaking under chaotic conditions (Maitlis and Sonenshein, 2010). Just recently, Weick (2010:537, as cited by Maitlis and Sonenshein, 2010) suggested that a revised interpretation of the Bhopal disaster should underscore the role emotions played during this sensemaking crisis. Nonetheless, studying the emotions present inside organizations remains a formidable challenge. The concept of emotion actually encompasses multiple dimensions (Sturdy, 2003). Various techniques (along the lines of the "biographical interpretative approach" by Hollway and Jefferson, 1997) have been devised to record ex-post the types of actors' emotions, yet speaking of one's emotions remains a difficult step, and the task of interpreting emotions outside the social and historical context where they were produced requires considerable finesse (Sturdy, 2003). To capture emotions, it is advised for the researcher to spend time *in situ* and observe how emotions are expressed over a longer period in a given organizational context (Fineman and Sturdy, 1999).

EOE is well adapted to such an exercise. More specifically, when the targeted context is chaotic, emotions are intense (Weick, 1993; Kayes, 2004; Munkejord, 2009: 153) and the somatic markers of these emotions (Damasio, 1994) are often visible. An analysis of these markers can be envisaged, at least in part, according to Birdwhistell's findings (1970) and in terms of interactional anthropology (Winkin, 2001). The researcher present *in situ* is then in a position not only to study the role of emotions, based on the corresponding body gestures and non-verbal communication, but also to determine how these emotions are felt by other actors and how they influence reciprocal interactions over time.

During this Darwin expedition, emotions were intense and affected the sensemaking process in a number of ways. For example, the excitement and joy experienced by climbers when it was announced that the first team would be setting out on the mountain expedition in Yendegaia diverted attention away from the potentially negative implications of having to split the team into two groups, without such implications ever getting raised at all. In contrast, when the boat ran aground, the leader's disappointment stirred feelings among climbers that nothing was going right and, in so doing, inhibited their efforts to reinvigorate the expedition. We will therefore be assessing the role of emotions as part of sensemaking over the course of this expedition via a collective examination of the various types of data collected on emotions (through videos, notes, photographs, audio recordings). The fact of spending time with the climbers in the field and experiencing several different situations in their company is key to understanding the role of emotions.

Strategic leadership

The strategic leadership literature has not yet focused seriously on disruptive and fast-moving environments when defining the notion of strategic leadership (Boal, 2000; Crossan *et al.*, 2008). This body of literature has emphasized the roles adopted by strategic leaders (Hambrick, 1997; House and Adyta, 1997; Hart and Quinn, 1993; Boal and Hooijberg, 2000) without paying much attention to how these roles are implemented in practice. Until now, this literature has mainly been based on quantitative data collected either retrospectively or in laboratory settings, with very little research generated by following leadership teams in action (Kisfalvi *et al.*, 2007). We feel however that strategic leadership must now be exercised within a complex and dynamic environment, through examining "what people actually do" when behaving as strategic leaders (Caroll, Levy and Richmond, 2008). By tracking the practices that get transformed into strategy (Johnson, Melin and Whittington, 2003; Jarzabkowski *et al.*, 2007), our task is to determine how strategic leaders are able to activate their roles by focusing on day-to-day activities, routines and conversations in order to better understand the transformative impacts both on the event interpretation process and on the strengthening or loosening of interaction patterns between multiple stakeholders.

During the Darwin expedition, in facing a succession of unexpected and ambiguous events, the team leader first tried to devise a new strategy for achieving the objective (i.e. crossing the Cordillera range), by progressing from east to west rather than *vice versa*. This change in direction had not been discussed in any detail with other team members, nor had the fact that the leader decided not to participate in this modified attempt at crossing. The deference climbers typically show their expedition leader and the routine interactions between guides were in no way altered. In the Cordillera Darwin, as the various attempts to ascend the range succeeded one another, no other leader emerged even though encountering such unexpected and hostile circumstances warranted that a leadership role be filled. The level of knowledge exchange among actors remained rather limited, tending to be more bilateral than distributed. While the expertise of team members was indeed real, authority was not entrusted to those capable of also performing the role of "expert". Each time an unforeseen event arose, the climbers would ask their leader "what he thought", though eventually organizing themselves somewhat more autonomously at the end of the expedition.

Our research is devoted to gaining a deeper understanding of what actually happened in terms of strategic leadership during the expedition. How did the leaders act and how did they interact with other team members to develop more or less appropriate interpretations and set forth relevant actions and changes? From a detailed examination of the data collected during our six-week *in situ* expedition field study, we intend to answer this question. Subsequently, we would like to propose practical roles for leaders to perform under highly volatile and ambiguous environments. Our focus will extend to processes that could help leaders discuss and make sense of continuously changing situations, in addition to constructing adequate solutions that, among other things, avoid the escalation to crisis status.

Beyond the spirit of adventure experienced and the ritualistic and symbolic practices adopted by group members, a number of organizational processes have given rise to in-depth examination. While the data analysis is still in progress, our aim from this case study is to offer a sizable and original contribution towards understanding contemporary organizational approaches, particularly as regards decision-making, sensemaking and leadership within turbulent and uncertain situations. The use of ethnographic methods in "extreme" contexts, outside the typical organizational framework, constitutes however a real challenge and requires researchers to conduct a full-scale preparation.

IV. Ethnographic challenges under extreme situations

While the Darwin case study can help us better understand specific organizational and management processes, it has also raised a number of challenges within the scope of EOE studies. Our research experience has made it possible to distinguish four major challenges that play out during an ethnographic field study under extreme environmental conditions.

1) Introduction of a set of well-adapted instruments

The researcher assigned tasks under extreme conditions must carefully specify the observation instruments to be implemented and ensure that the various field actors are making appropriate use of the equipment (Lièvre and Rix, 2008). As the expedition was unfolding, a significant hindrance encountered was the weight and bulkiness of the equipment needed to be hauled. Another consideration was that batteries lost their charge very quickly during periods of intense cold or wet weather conditions. The risk of damaged or lost instruments also had to be taken into account. In recognition of these constraints, our efforts to secure data collection entailed multiple types of recordings (audio, video, handwritten), including making backup copies. For example, videos were taken by a professional cameraman, as well as by team members equipped with more lightweight cameras. Climbers carried the lightest possible tape recorders, which were designed with maximum battery life.

Another concern related to ensuring that climbers were performing their assigned daily tasks. Once the climbing team was up in the mountains, we had no means of reminding them to log their responses. When they experienced difficulties or tension, i.e. situations offering us valuable insight, they tended to overlook the recording exercise. The fact that researchers were able to observe climbers in action and had access to pursue more in-depth conversations upon their return was key to completing the data collection phase. Instrumentation therefore represents a real challenge for management researchers under such extreme conditions and requires coping with environmental constraints while ensuring appropriate equipment use by all participants.

2) Researcher adaptation to events as they unfold

In ambiguous and disruptive environments, actors are often led to improvise and construct new management rules in order to survive (Weick and Sutcliffe, 2001; Bigley and Roberts, 2001). During the Darwin expedition, climbers very frequently relied upon improvisation when facing unexpected situations, in which case the researchers found themselves having to

improvise as well to pursue data collection efforts. They also had to relieve each other when conducting live observations and/or recordings. For instance, one researcher was concentrating on the discussions held by a subgroup of climbers, while another was participating in a field reconnaissance mission with a different subgroup, and at the same time the cameraman was filming discussions taking place between the team leader and the boat captain. In another case, weather conditions forced the team to leave the base camp boat, embark on a ferry and disembark at night in a bay. The researchers accepted this mission without being aware of the conditions they might potentially encounter, i.e. total isolation for several days (when climbers left the camp to undertake the crossing). It would thus appear that under such conditions, ethnographic research requires focusing not only on adaptation capacities, but also on a physical commitment made by the participating researchers.

3) Difficulties inherent in data analysis due to both data volume and number of researchers

Data management constitutes one of the key challenges when conducting ethnographic research. As underscored by Miles and Huberman (1994), data management and analysis are correlated since no closed borders have been erected between the two disciplines. Furthermore, given the volumes involved, data could easily be miscoded, erroneously tagged, poorly correlated or misinterpreted. In addition, the data processing step must incorporate the projections made by field team members on the researcher as well as those made by the researcher on team members (Devereux, 1967). For this Darwin expedition, the data management component has created potential difficulties. For one thing, the sheer amount of data collected has been substantial (over 220 hours of conversations and meetings, audio and video recordings). Furthermore, this research has been conducted by four different individuals, each of whom was present at different times and situations throughout the expedition, meaning that observation interpretations might not always be identical.

4) Issues related to the ethnographic researcher operating in the background under extreme field conditions

Management researchers must be capable of combining their presence as a participant to the event with a comfortable distance relative to what occurs in the field. Such an exteriorized posture adopted by participants can in large part be characterized by a certain restraint, or even prudence, in the statements and positions voiced as well as in behavior demonstrated during interactions (Plane, 1994). This characterization includes maintaining distance, which may be expressed physically (Hall, 1966).

When placed in close quarters on a boat serving as an expedition base camp however, it can be somewhat awkward to keep such a distance. In reference to Junker's classical grid (1960), the status of observer oscillates between that of an "observer who participates" and a "participant who observes". During the expedition, each researcher had a role that varied between limited involvement in tasks related to the situation and a more comprehensive sharing of mountaineering activities. Excessive identification with the climber's perspective, contrasted with ensuring that the meaning behind actions or pronouncements has not been misconstrued, constituted the two focal points of the "tension that stems from combining the roles of observer and participant, which lie at the center of the researcher's work" (Groleau,

2003: 217). When in the field, this tension at times posed real challenges, given that the researchers were physically involved in the expedition and entirely dependent on the climbers for their safety and security. The epistemologically-motivated distancing requirement became difficult to respect. For example, one of the researchers spent a few days alone at the camp with the climbers. For safety reasons, she could not stray from the camp or group. Her duties included communicating with climbers during their glacier crossing and alerting the boat crew in case of a problem. Such a position (i.e. having to assume responsibility for the safety of the expedition) compromised her ability to step back, take a physical distance and show restraint. Moreover, this distancing requirement may in fact be irrelevant in such contexts (de Rond, 2009). The fact that the researchers were partially (while at the base camp) physically exposed to the same environment as the climbers (e.g. winds, wet weather, storms) provided them with a deeper understanding of the situations climbers were enduring in crossing the Cordillera.

This assessment also calls into question the physical capacities of researchers when operating in such contexts: to what extent do they need to participate in the same tasks and efforts as the climbers in order to effectively collect data? One member of our research team, who had previous climbing experience, was able to participate on the reconnaissance itineraries and equipment transfer hikes, which provided valuable insight into what was happening within the team when dealing with some of the technical difficulties, although none of the researchers possessed sufficient skills or physical conditioning to accompany the climbers into the Cordillera. While our instrumentation was able to record extensive data on what was happening in the mountains, including various situations aided by video recordings, this lack of direct contact during the Cordillera crossing represents a limitation of our study. Hence, an ethnographic study carried out in the presence of danger exacerbates the problem raised relative to the appropriate distance between researcher and field of investigation.

Conclusion

In this paper, we suggested that an innovative form of ethnography, that we called “extreme organizational ethnography”, could contribute to a better understanding of contemporary organizational issues, raising specific issues and challenges. This paper constitutes the first step in our analysis of the potential contributions and challenges associated with ethnography under "extreme" conditions, within the framework of an organizational and management study. In addition, this "mobile" ethnography (Newman, 1998) has several implications regarding the position and role of the researcher, and these are indeed capable of altering our practices and level of involvement.

Chief among them, the role of emotions in the process of conducting research has not yet been explored in depth (Munkejord, 2009; Kisfalvi, 2006), and from this vantage point EOE offers some guidance. The relationship between the observation target and the observer is in fact a critical part of methodological issues; it always involves an emotional and subjective dimension (Van Maanen, 1988). Devereux (1967) was already recommending the need to incorporate the subjectivity and emotions inherent in any kind of observation to achieve greater objectivity ("Objectivity results from the creative control of consciously recognized

irrational reactions, without loss of affects", Devereux, 1967:100, emphasis on the original, op. cit. by Kisfalvi, 2006). For a long time however, these concerns only received limited attention in the OE literature, but that trend has been changing recently (Alvesson *et al.*, 2008). Within the scope of an ethnographic research project, the researcher is placed in close and extensive contact with individuals in the field, a situation that produces particularly intense emotional responses, and these raise a number of methodological issues (Kisfalvi, 2006). This type of research provides the researcher with an opportunity to assess: the influence his or her emotions exert on the relationships established with observation subjects, his or her understanding of the field environment, and the quality of data collection and analysis (Munkejord, 2009; Kisfalvi, 2006).

We have begun examining these issues based on indications derived from the emotions we felt when participating in the expedition. Our objective here is to highlight the role of researchers' emotions within the overall research process and to draw lessons on: structuring the field environment, making successful adaptations, and developing in-depth familiarity. Within the scope of ethnographic studies, the researcher actually experiences the same living conditions as his or her observation subjects, thus creating an empathetic situation (Munkejord, 2009). This set-up enables the researcher to feel, at least in part, what the subject is feeling and yields better contextual understanding. As an example during the Darwin expedition, the act of sharing with climbers the joyous sensation of beginning the crossing and then the frustration of being held up by the storm and denied access to the Cordillera, plus being able to observe first hand the physical impact of tensions caused by this delay, made it clearer why the leader decided to completely modify the expedition strategy, which involved abandoning the boat and initiating the crossing from the most difficult side.

The methodology implemented in the EOE approach also offers a more systematic way of accounting for the choices all researchers must make regarding both data collection and countertransference mechanisms. EOE allows cross-referencing the data, so as to detect the presence of complex realities. In this respect, conducting ethnographic research with a team of several researchers is a more attractive prospect: multiple datasets can be generated, each from a different angle of observation. Moreover, mixed teams (i.e. composed of researchers both familiar and unfamiliar with the particular field setting) are capable of generating varied interpretations. Provided the researchers are able to avoid polarizing the set of interpretations (Allard Poesi, 2003), they are then in a position to take a step back and analyze the data, in comparing interpretations and more systematically crafting alternative explanations, which serves to improve research credibility and quality (Kisfalvi, 2006; Giami, 2001).

We are hopeful that our Darwin case study has provided helpful insight into how EOE can enhance organizational and management knowledge. Clearly, no simple response can address the multiplicity of challenges faced. Moreover, this type of research poignantly raises the issue of researcher reflexivity, yet therein lies one of the underlying benefits of this type of research.

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[i] The term "exposure" as used herein implies tremendous difficulty, requiring extreme commitment from those undertaking the challenge. In other words, the chances of coming through unscathed are slight.